DETAILED ACTION

Continued Examination Under 37 CFR 1.114.

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 08/31/2009 has been entered.

Response to Arguments

Applicant amends the independent claims and argues that the cited references did not disclose storing a candidate program in the receiving terminal without storing the candidate program in its entirety.

However, Kim et al disclose instead of delivering video streams directly from a head-end video processor, the system, either in whole or in parts, preloads a selection of videos on a subscriber's set top box based on a usage profile; a portion or all of the requested video file is preferably pre-loaded in the subscriber's STB 140 prior to playing, thus achieving a real-time viewing experience. It is also possible to preload to the STB 140 several minutes of the first chapter of each video in the P500 list. This would decrease the time delay necessary, because a portion of the selected video itself would already be stored on the STB. A portion of each chapter C.sub.1, C.sub.2, . . . CN, however, is downloaded in parallel, so that if a viewer skips forward to any chapter, there will be at least a small portion of that chapter already buffered. This information proves that the server preloads portion of contents or video in a subscriber's set top box.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject

matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 13, 15-16,18-22, 22-26, 28, 30-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mori in view of Watson further in view of Kim et al, US No. 20020133830.

Re claim 13, Mori et al disclose an information delivery system for causing a receiving terminal to conduct pre-reading processing prior to data reproduction processing, select suitable data from a candidate program head data group in a received data storage , and change over reproduction data at time when following data is delivered from a transmitter(see fig.2, broadcast information server; a broadcast reception apparatus that has a function to previously read and cache high-use-possibility reproduction programs, col.15, lines 65-67; (see fig.6 where the program execution unit receives production program from storage unit and display it on the display unit),

candidate program head data group is a set of head data of sequence data which are formed into a plurality of formats corresponding to the reproduction environment of the receiving terminal, in one candidate program or a plurality of candidate programs that might be viewed by a user at a single opportunity(see fig.3, a plurality of formats ; determining the reproduction program to be cached, among the candidate reproduction programs,col.5, lines 16-18).

But did not explicitly disclose reproduce the selected data at time of reproduction;

wherein the receiving terminal is operable to select the suitable data in accordance with a reproduction environment which is at least one of a plurality of environments

related to a state of connection between the receiving terminal and the transmitter, including an arithmetic operation capability which can be utilized by the receiving terminal and a reproduction quality, and

during the pre-reading processing a sequence data corresponding to a particular candidate program is stored in the receiving terminal without storing the particular candidate program in its entirety.

However, Watson et al disclose reproduce the selected data at time of reproduction(A movie may arrive and be stored in the set-top box, however it may have a start date associated with it which does not allow it to be viewed until that date,0014).

It would have been obvious for any person of ordinary skill in the art at that time the invention was made to introduce a reproduction time into the system of Mori, as taught by Watson, for the purpose of establishing synchronization between the delivery system and the receiving system.

And Kim et al disclose wherein the receiving terminal is operable to select the suitable data in accordance with a reproduction environment which is at least one of a plurality of environments related to a state of connection between the receiving terminal and the transmitter, including an arithmetic operation capability which can be utilized by the receiving terminal and a reproduction quality(the download rate must be consistently greater than the play rate. This requires that the video encoded rate be less than the line speed of the subscriber's connection to the COS 126. For data transmission over a xDSL line from the COS 126 to the STB 140, where a fully dedicated connection exists, a consistent file download rate can be maintained so that the STB 140 local video memory 222 can always be available for the STB 140 video processor,0123);

during the pre-reading processing a sequence data corresponding to a particular candidate program is stored in the receiving terminal without storing the particular

candidate program in its entirety(instead of delivering video streams directly from a head-end video processor, the system, either in whole or in parts, preloads a selection of videos on a subscriber's set top box based on a usage profile, 0030; a portion or all of the requested video file is preferably pre-loaded in the subscriber's STB 140 prior to playing, thus achieving a real-time viewing experience,0110; 0122;0131; 0133; 0136) .

It would have been obvious for any person of ordinary skill in the art at that time the invention was made to modify the invention of Mori in view of Watson in introducing matching the download rate with the play rate and preload parts or portions of the selected video prior to playing, as taught by Kim, for the purpose of limiting mismatch between transmission and reception and for limiting delay in receiving requested contents.

Re claim 15, Mori et al disclose wherein the candidate program is a subset of programs obtained as a result of retrieval processing for all programs (when there are a plurality of candidate reproduction programs and the candidate reproduction programs correspond to a plurality of contents, a reproduction program having the highest corresponding contents number is preferentially selected, col.3, lines 16-20).

Re claim 16, Mori et al disclose wherein the candidate program is a subset of programs restricted on the basis of personal information of a user from among all programs (a storage means for storing history information that shows history of genres to which contents having been viewed belong, col.2, lines 40-42).

Re claim 18, Mori et al disclose wherein the sequence transmission request transmitted by the receiving terminal comprises environment information concerning a current reproduction environment of the receiving terminal, and when reading out the head sequence data from the received data storage, the reproduction sequence selector reads out the head sequence data having a data format most suitable for the current reproduction environment from the received data storage(it is supposed here

that the contents are generated using any formats among HTML, XML, DVX, and JAVA, col.16, lines 12-14).

Re claim 19, Mori et al disclose wherein the head sequence data comprises management data for managing delivery service, upon reproducing the head sequence data, the receiving terminal transmits the management data to the transmitter(see fig.6, program for cache determining unit; this unit manages files), and

the transmitter determines an optimum data format of following data and delivers sequence data, on the basis of received management data(it is supposed here that the contents are generated using any formats among HTML, XML, DVX, and JAVA, col.16, lines 12-14).

Re claim 20, is met as previously discussed with respect to claim 13.

Re claim 21, Mori et al disclose causing the receiving terminal to transmit a sequence transmission request to the transmitter to specify a sequence to be reproduced (see fig.7, receive channel selection from user);

causing the receiving terminal to read out head sequence data of a sequence requested to be reproduced, from the received data storage and reproduce the sequence data(see fig.6 where the program execution unit receives production program from storage unit and display it on the display unit);

causing the transmitter to receive the sequence transmission request, read out a following portion of the head sequence data included in sequence data of the sequence requested to be reproduced, from a transmission data storage, and delivering the following sequence data to the receiving terminal (an input means for receiving a selection of channels from a viewer; a contents identifying means for identifying, by

referring to the broadcast information, contents that are to be transmitted over the channels specified by the viewer, as viewing candidate contents, paragraph 42);

causing the receiving terminal to receive the following sequence data (seefig.6, reception unit) and change over between the head sequence data and the following sequence data; and reproducing the following sequence data (see fig.6, program for cache determining unit).

Re claim 22, is met as previously discussed with respect to claim 15.
Re claim 24, is met as previously discussed with respect to claim 18.
Re claim 25, is met as previously discussed with respect to claim 19.

Re claim 26, Mori et al disclose an information delivery apparatus serving as a transmitter included in an information delivery system for causing a receiving terminal to conduct pre-reading processing prior to data reproduction processing, select suitable data from a candidate program head data group in a received data storage, and change over reproduction data at time when following data is delivered from the transmitter(see fig.2, broadcast information server; a broadcast reception apparatus that has a function to previously read and cache high-use-possibility reproduction programs, col.15, lines 65-67; (see fig.6 where the program execution unit receives production program from storage unit and display it on the display unit);

the candidate program head data group is a set of head data of sequence data which are formed into a plurality of formats corresponding to the reproduction environment of the receiving terminal, in one candidate program or a plurality of candidate programs that might be viewed by a user at a single opportunity(see fig.3, a plurality of formats ; determining the reproduction program to be cached, among the candidate reproduction programs,col.5, lines 16-18).

But did not explicitly disclose reproduce the selected data at time of reproduction;

wherein the receiving terminal is operable to select the suitable data in accordance
with a reproduction environment which is at least one of a plurality of environments
related to a state of connection between the receiving terminal and the transmitter,
including an arithmetic operation capability which can be utilized by the receiving
terminal and a reproduction quality, and

during the pre-reading processing a sequence data corresponding to a particular
candidate program is stored in the receiving terminal without storing the particular
candidate program in its entirety.

However, Watson et al disclose reproduce the selected data at time of reproduction(A
movie may arrive and be stored in the set-top box, however it may have a start date
associated with it which does not allow it to be viewed until that date,0014).

It would have been obvious for any person of ordinary skill in the art at that time the
invention was made to introduce a reproduction time into the system of Mori, as taught
by Watson, for the purpose of establishing synchronization between the delivery system
and the receiving system.

And Kim et al disclose wherein the receiving terminal is operable to select the suitable
data in accordance with a reproduction environment which is at least one of a plurality
of environments related to a state of connection between the receiving terminal and the
transmitter, including an arithmetic operation capability which can be utilized by the
receiving terminal and a reproduction quality(the download rate must be consistently
greater than the play rate. This requires that the video encoded rate be less than the
line speed of the subscriber's connection to the COS 126. For data transmission over a
xDSL line from the COS 126 to the STB 140, where a fully dedicated connection exists,
a consistent file download rate can be maintained so that the STB 140 local video
memory 222 can always be available for the STB 140 video processor,0123);

during the pre-reading processing a sequence data corresponding to a particular candidate program is stored in the receiving terminal without storing the particular candidate program in its entirety(instead of delivering video streams directly from a head-end video processor, the system, either in whole or in parts, preloads a selection of videos on a subscriber's set top box based on a usage profile, 0030; a portion or all of the requested video file is preferably pre-loaded in the subscriber's STB 140 prior to playing, thus achieving a real-time viewing experience,0110; 0122;0131; 0133; 0136) .

It would have been obvious for any person of ordinary skill in the art at that time the invention was made to modify the invention of Mori in view of Watson in introducing matching the download rate with the play rate and preload parts or portions of the selected video prior to playing, as taught by Kim, for the purpose of limiting mismatch between transmission and reception and for limiting delay in receiving requested contents.

Re claim 28, is met as previously discussed with respect to claim 13.
Re claim 30, is met as previously discussed with respect to claim 13.

Re claim 31, Mori et al disclose comprising a request transmitter for generating a sequence transmission request to specify a reproduction sequence in the received terminal and transmitting the sequence transmission request to the transmitter (receiving from a viewer a selection of reproduction programs to be cached,col.4, lines 55-57).

Claims 14, 17, 23, 27, 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mori in view of Watson further in view of Kim and further in view of the "Admitted Prior Art".

Re claim 14, Mori et al disclose wherein the receiving terminal comprises:

a request transmitter for transmitting a sequence transmission request to the transmitter to specify a sequence to be reproduced (see fig.7, receive channel selection from user; that means the user sends a request to the transmitter) and outputting identification information of the sequence to be reproduced (see fig.g.7, receive broadcast data);

a reproduction sequence selector for reading out head sequence data of a sequence requested to be reproduced, from the received data storage(program executing unit 110 reads a reproduction program and a content from the reproduction program storage unit 109 and the contents storage unit 105, col.18, lines 14-16);

means for receiving following sequence data from the transmitter (see fig.7, receive broadcast data);

a switcher for changing over between the head sequence data and the following sequence data(changing Reproduction Program to be Cached, col.21, line 8); and

a decoder for reproducing sequence data supplied from the switcher (see fig.7, decode broadcast data), and

But Mori et al did not explicitly disclose the transmitter comprises: a transmitting sequence selector for receiving the sequence transmission request from the receiving terminal, reading out a following portion of the head sequence data included in sequence data of the sequence requested to be reproduced, from a transmission data storage, and delivering the following sequence data to the receiving terminal.

However, Admitted Prior Art (Applicant drawing fig.1) disclose a transmitting selector 203 and a storage 200 and sequence data reader 202, it would have been obvious for any person of ordinary skill in the art at that that time the invention was made to modify the invention of Mori in view of Watson further in view of Kim in introducing transmitting sequence selector and sequence data reader, as taught by the admitted prior art , for

the purpose of allowing the system to deliver data sequentially to the terminal from storage data.

Re claim 17, Mori et al disclose wherein the receiving terminal comprises: a candidate program determiner for transmitting candidate program request information to the transmitter (see fig.6, program for cache determining unit); and

means for receiving the candidate program head data group from the transmitter (transmitting content, as viewing candidate contents, col.5, lines 38-39);

But Mori et al did not disclose the transmitter comprises: a candidate program head data reader responsive to reception of the candidate program request information from the receiving terminal, for reading out a head data group of a candidate program from the transmission data storage and transmitting the candidate program head data group to the receiving terminal.

However, Admitted Prior Art discloses sequence data reader at transmitter.

It would have been obvious for any person of ordinary skill in the art at that time the invention was made to modify the invention of Mori in view of Watson further in view of Kim in introducing sequence data reader at transmitter , as taught by the admitted prior art, for the purpose of reading out the candidate program from the transmission data storage before transmitting that candidate program to the terminal.

Re claim 23, is met as previously discussed with respect to claim 17.
Re claim 27, is met as previously discussed with respect to claim 14.
Re claim 29, is met as previously discussed with respect to claim 14.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jean Duclos Saintcyr whose phone number is 571-270-

3224. The examiner can normally reach on M-F 7:30-5:00 PM EST.If attempts to reach the examiner by telephone are not successful, his supervisor, Brian Pendleton, can be reach on 571-272-7527. The fax number for the organization where the application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Retrieval (PAIR) system. Status information for published applications may be obtained from either private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see htpp://pair-direct.uspto.gov. Should you have questions on access to the private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197(toll free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, dial 800-786-9199(IN USA OR CANADA) or 571-272-1000.

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